



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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December 19, 1994

Mr. Phillip Palmer  
Diamond K Company  
234 North 500 West  
Richfield, Utah 84701

Re: Plan Review, Diamond K Company, DKG Quarry (B&J Placer Claims), M/015/041  
(UTU-69860), Emery County, Utah

Dear Mr. Palmer:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the B&J Placer Claims Gypsum Mine, located in NE/4 SW/4 section 29, T22S, R9E Emery County, Utah, which was received November 30, 1994. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

**R647-4-104 - Filing Requirements and Review Procedures**

The Division is aware of the BLM San Rafael Resource Area's November 10, 1994, Notice of Decision granting approval of the Plan of Operations as amended on October 17, 1994. The BLM has requested a bond in the amount of \$24,000 (\$2,000/acre for 12 acres) be posted.

**R647-4-106 - Operation Plan**

**106.3 Estimated acreages disturbed, reclaimed, annually.**

Diamond K's submission indicates approximately 7.4 acres are currently disturbed. Approximately 4 acres are scheduled for reclamation prior to the end of 1994. An additional 5 acres of disturbance are proposed for 1995. An earlier submission to the BLM proposed an expansion to a total disturbed area of 15 acres. No schedule was provided for the increase in disturbance, therefore, the Division will assume Diamond K proposes to post a surety for the entire 12 acres of disturbance at this time. (AAG)



**106.5 Existing soil types, location, amount:**

The operator needs to submit results of a soil analysis which includes at a minimum: Texture, pH, Ec, CEC, Total N, Available Phosphorus (as  $P_2O_5$ ), Potassium (as  $K_2O$ ), and Acid/Base potential. This analysis needs to be conducted on both the 4 inches of topsoil and the 8 inches of subsoil. (LMK)

**106.6 Plan for protecting & redepositing soils:**

The Division needs the soil analysis requested under 106.5 above, before a decision as to what type(s) of fertilizer or other soil amendments may be needed to achieve successful reclamation. (LMK)

**106.7 Existing vegetation - species and amount:**

Apparently the operator has conducted field studies of vegetation resources in the area. Submittal of this information is pending analysis. The operator will submit a copy of the report when the University of Utah completes it. The Division will need this information before we can offer our final approval of the large mining application. (LMK)

**106.8 Depth to groundwater, extent of overburden, geology:**

On page 5, Form MR-LMO, Section III, item 4, the applicant lists the depth to groundwater as 6655-6600 feet. Upon closer examination of a USGS topographic map of the area, the Division notes that this appears to represent the *surface* elevation of the mine area. If this is also the elevation of the local groundwater table please confirm. If not, please provide an estimate of the depth to the local and/or regional aquifer in the vicinity of the mine site. Please provide information to justify/substantiate your depth estimate as well. (DWH)

**R647-4-109 - Impact Assessment**

**109.1 Impacts to surface & groundwater systems**

It is the Division's opinion that if the operator continues to implement and maintain appropriate erosion and sediment control structures (as described in the plan of operations), there will be minimal/negligible impacts to the local hydrologic regime (eg., South Salt Wash drainage). (DWH)

#### **109.4 Slope stability, erosion control, air quality, safety**

The Division recommends that all slopes be left at an angle close to their original state or 3h:1v at final reclamation. Has Diamond K received permits or exemptions from permitting requirements from the Utah Department of Environmental Quality, Divisions of Water Quality and Air Quality? (AAG)

#### **R647-4-110 - Reclamation Plan**

##### **110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed**

From correspondence and the Plan of Operations submitted to the BLM, and the MR-LMO form submitted to the Division, we offer the following interpretation of the reclamation plan for this site.

*No oil, lubricants, or toxic substances will be drained onto the ground. All trash at the site will be removed to an authorized dump or landfill. All disturbed areas are to be recontoured to leave an undulating surface. The Division prefers all slopes to be returned to their approximately original contour or no steeper than 3:1. The recontoured area will be furrowed along the contour to leave a rough surface. Salvaged topsoil will be replaced on the recontoured areas. Salvaged cryptogamic soils will be placed on the replaced topsoil. Some reject fines may be placed in the pits as backfill. The disturbed area will be seeded using a seed mix approved by the BLM (DOGM concurrence is requested). The reclaimed areas may be fenced if necessary, to prevent damage by cattle grazing. The Division will require that any drainages impacted by this operation be left in a stable condition.*

Please confirm or clarify this interpretation of the reclamation planned for this site.  
(AAG)

##### **110.5 Revegetation planting program:**

It is our understanding that the operator is in the process of having the revegetation seed mix revised by the University of Utah. Before a new seed mix is used, it must be approved by the Division and the BLM. (LMK)

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**R647-4-112 - Variance**

No variances were requested in this application.

**R647-4-113 - Surety**

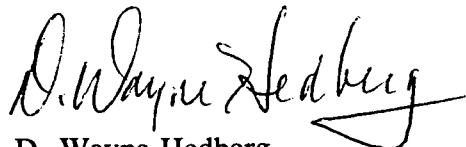
The BLM has indicated that if the Division's reclamation surety estimate for this project is higher than the BLM estimate (12 acres at \$2,000/acre) Diamond K may post the surety with the Division and provide evidence of this to the BLM State Office. A draft reclamation surety estimate has been prepared by the Division and is attached. The draft amount is \$29,400 in terms of 1999 dollars. This estimate is based on third party costs and includes mobilization, supervision and five years of escalation. The Board of Oil, Gas and Mining has instructed the Division to escalate all new surety estimates five years into the future. Please review our draft estimate and provide us with any comments you may have. (AAG)

Once the reclamation surety amount has been agreed upon, please let us know what form of surety Diamond K wishes to post, so that we may provide you with the appropriate forms. Since federal lands are involved, we request that the surety be made out jointly to the BLM and the Division.

**R647-4-116 - Public Notice & Appeals**

The Division will suspend further review of the B&J Placer Claims Gypsum Mine NOI until your response to this letter is received. If you have any questions in this regard please contact me, Tony Gallegos, or Lynn Kunzler of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,



D. Wayne Hedberg  
Permit Supervisor  
Minerals Regulatory Program

jb  
Attachment  
cc: Neil Simmons, BLM San Rafael RA  
Opie Abeyta, BLM State Office  
Lowell Braxton, DOGM  
M15-41.RVW

**RECLAMATION ESTIMATE**

Diamond K - Phillip M. Palmer

B &amp; J Placer Claims - Gypsum Mine

M/015/041

Emery County, Utah

Prepared by Utah State Division of Oil, Gas &amp; Mining

**DRAFT**

last revisio 12/14/94

filename M15-41.WQ2

*Details of Final Reclamation**-Reclamation consists of earthwork and revegetation; no structures are present**-Disturbed areas to be recontoured to leave an undulating surface**-Recontoured areas to be furrowed along the contour to leave a rough surface**-Cryptogamic soils (upper 4 inches) salvaged & replaced 6,389 CY est**-Overburden stockpiled & replaced in pit(used 2 ft depth) 38,720 CY est**-All trash & debris to be removed to an authorized dump or landfill**-Disturbed areas to be seeded using the BLM seed mix recommendation**-Buffer area 100 ft wide to be left between Moore road and mine site (???)**-All impacted drainages to be restored to pre-mining condition (DOGM)**-All slopes left at approximate original contours or 3h:1v**-BLM surety estimate is \$2,000/acre x 12 acres = \$24,000**-Estimated total disturbed acreage = 12.0*

<u>Activity</u>	<u>Amount</u>	<u>\$/unit</u>	<u>\$</u>
Regrade pit areas	12 acre	436	5,232
Place overburden	38,720 CY	0.27	10,454
Place cryptogamic soils	6,389 CY	0.27	1,725
Furrow & seed disturbed areas	12 acre	250	3,000
Remove trash & debris	12 acre	100	1,200
Restore drainage-ASSUMED LF	250 LF	1.8	450
Mobilization	1 equip	1,000	1,000
	Subtotal		23,061
	Add 5% supervision		1,153
	Subtotal		24,214
	Add 10% contingency		2,421
	Subtotal in 1994 -\$		26,636
	Add 5 yr escalation at 2.01%		2,787
	Total 1999-\$		29,423

**Rounded Total in 1999-\$****\$29,400**

Average cost per acre =

\$2,450

**DRAFT**